Do Poachers make Harsh Gamekeepers?

Attitudes to Tax Evasion and to Benefit Fraud.

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Abstract

In neoclassical economics the decision to evade tax is analyzed in the same way as the decision to commit benefit fraud. Both decisions depend on the net expected utility that a 'representative individual' will derive from the gamble. If the financial loss a community experiences when there is tax evasion is equal to the financial loss experienced when there is benefit fraud, there is no reason to expect any difference in individuals' attitudes towards these crimes. However, in practice, individuals are far more condemnatory of benefit fraud than of tax evasion. Prospect theory is applied to explain this difference of attitude as well as why individuals are more likely to commit tax evasion than benefit fraud. Moreover, when comparing attitudes and behavior towards public finance crimes in different countries, the salience of the public finances in individuals' lives, together with the perceived prevalence of illegal behaviors, is important. A comparison of attitudes in Italy and in the UK indicates that Italians are more likely to more heavily punish these crimes *and* to commit these crimes. The present study sheds insight when explaining why 'gamekeepers' who call for the harshest punishments are the individuals who are more likely to act as 'poachers' themselves. There is a distinction between what individuals wish for themselves in a 'private-person' role and what they wish for others in a 'public-citizen' role – *would-be poachers are harsh gamekeepers*.

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1. Introduction

In neoclassical economics, tax evasion and benefit fraud are analyzed as gambles (Allingham and Sandmo 1972; Yaniv 1986). When deciding whether to commit tax evasion and when deciding whether to commit benefit fraud, individuals assess the net expected utility they will derive if they commit these crimes. As Halla and Schneider (2014:412) note, "… tax evasion and benefit fraud are almost identical in the standard neoclassical model of compliance". If individuals experience the same financial loss from benefit fraud as from tax evasion, there is no reason to assume that their perceptions and attitude to these crimes will differ. However, in many academic papers and in the popular press, attitudes to these two crimes are very different. Individuals are far more condemnatory of benefit fraud.[2]

In this paper the objective is to explain this and other differences in attitudes to public finance crimes. The paper sets out to compare the way citizens view the loss they experience when there is benefit fraud with the way they view the loss they experience when there is tax evasion. The intention is to apply prospect theory (Kahneman and Tversky, 1979) to compare individuals' subjective values when they experience the same financial loss from benefit fraud and from tax evasion. Barberis (2013) argues that: "There are areas of economics where prospect theory has not been applied very extensively, even though it has the potential to offer useful insights. Public finance, health economics and macroeconomics are three such fields…". Here, prospect theory is applied to compare individuals' attitudes to these public finance crimes.

In the next section of the paper a distinction is drawn between individuals placed in a 'public-citizen' role and individuals placed in a 'private-person' role when subjective losses are compared with reference to the distinctive value function employed in prospect theory. If individuals experience the same financial loss, why are they more disapproving of benefit fraud than of tax evasion? If individuals are more condemnatory of benefit fraud, are they more likely to commit tax evasion than to commit benefit fraud? Are there differences in attitudes in different countries?

Section three of the paper describes the questionnaire survey that was employed to provide empirical insight into these questions in Italy and in the UK. Responses to this questionnaire survey are analyzed in section four. Conclusions and policy implications are discussed in the final section of the paper. The questions posed in this paper are reminiscent of the roles individuals play when they act as 'gamekeepers' (assessing the 'seriousness' and consequent penalties for different public finance crimes) and when they act as 'poachers' (willingness to commit these crimes themselves).

2. A 'Behavioural' Analysis of Attitudes to Tax Evasion and to Benefit Fraud

Kahneman and Tversky (1979) argued that individuals' subjective value of changes (in income or in wealth) depend on the way changes are framed. Drawing on a well-established experimental-economics literature, they argued that individuals are far more sensitive to changes that are coded as 'losses'. The difference in the subjective values they attach to changes coded as 'losses'

[2]Houghton (1979:91, quoted in Thomas 1992: 119) suggests that: "Tax-dodging is like the common cold – prevalent: no certain cure; no cause for alarm, but often seems worse than it is.", However Campbell is clear that '"Fraud is like VD". "If you have got it you don't talk about it" but "left to fester, it becomes a cancer: not so much VD, but more like the aids of the economic system."' (Bose and Gunn 1989:233 quoted in Thomas 1992: 202).

(compared to the subjective values they attach to changes coded as 'gains') determines the distinctive shape of the value function employed in prospect theory.

With evidence that an individual will be far more willing to take risk to avoid a 'loss' than to secure a 'gain', the value function increases at a decreasing rate over 'gains' and decreases at a decreasing rate over 'losses'. The value function is concave in 'gains' (in a +ve, +ve quadrant) and convex in 'losses' (in a -ve,-ve quadrant), but the value function is not symmetrical. It is much steeper in the -ve,-ve quadrant. The shape of the value function is illustrated in Figure 1. In Figure 1, *v(U)* is the value function of individual *U* and *v(I)* is the value function of individual *I*. In each case the value function displays the properties that indicate that there is 'loss aversion'.

[Insert Figure 1 near here]

When applying prospect theory, Barberis (2013: 178) comments that: "… in any given context, it is often unclear how to define what a gain or a loss is, not least because Kahneman and Tversky offered relatively little guidance on how the reference point is determined". The reference point (for a 'gain' and for a 'loss') is usually located at the origin. In Figure 1 the reference point is at the origin; individuals *U* and *I* code 'losses' and 'gains' with reference to the *status quo*. They code benefit fraud and tax evasion differently when experiencing the same financial loss. In Figure 1, subjective values are reported on the y axis and the change in finance is reported on the x axis.

First, we focus on how the individual views these crimes as an honest observer in a 'public-citizen' role. As Barberis (2013) notes, prospect theory was developed to analyze risky choices but, in this situation, the external observer takes no risk at all. While the theory was developed to analyze risky choices, Thaler (1980), amongst others, has shown that it can be applied to analyze the subjective values of individuals who take no risk at all.

A second consideration is that prospect theory was developed to compare subjective values, while this paper focuses on differences in individuals' attitudes. In this paper the implicit assumption is that individuals' attitudes (to benefit fraud and to tax evasion) are informed by individuals' assignment of subjective values to these crimes. This assumption does not imply that individuals' subjective values will only depend on financial loss. In Figure 1, the value function of individual *I* differs from the value function of individual *U* because *I* attaches greater salience to fiscal compliance. The social norms, that influence individuals' perceptions of action, are also relevant when comparing subjective values (Cullis and Jones, 2009).

In the first instance, the intention is to compare an individual's attitude to benefit fraud and to tax evasion. Later in the paper, the intention is to compare attitudes across individuals. Using Figure 1 it is suggested that:

(i) An individual is more condemnatory of benefit fraud than of tax evasion.

An important consideration is the reference point of the observer. Initially, this is the current status of the 'public purse' from the 'public-citizen' point of view. With this reference point, benefit fraud *takes revenue out* of the 'public purse'. With loss aversion, individuals code benefit fraud as a 'loss'. However, tax evasion *reduces the additional revenue* that would increase the 'public purse'. Tax evasion is likely to be coded as a 'foregone gain'.

With 'loss aversion', individuals' attitudes to these crimes will differ systematically. In Figure 1, the financial loss from benefit fraud (*0-bf*^{1}) is equal to the financial loss from tax evasion (*0-te*^{1}) that is coded as foregone gain. As tax evasion is coded as a foregone gain, the *subjective value* of the foregone gain from tax evasion for individual *U* (*0-ve(U)* at point *1*) is lower than the *subjective value* of the loss from benefit fraud (*0-vf(U)*at point *3*). Similarly, individual *I* 's *subjective value* of the

foregone gain from tax evasion (*0-ve(I)* at point *2*) is lower than the *subjective value* of the loss from benefit fraud (*0-vf(I)* at point *4*). Failure to add to the 'public purse' (a foregone gain) is not considered as bad as a conspiracy to *take resources out* of the 'public purse'. [3]

(ii) *Individuals call for higher punishments for benefit fraud than for tax evasion.*

A corollary of (i) is that each 'public-citizen' will be willing to take sterner measures to avoid the loss of revenue from benefit fraud, than to avoid an equal loss of revenue from tax evasion. Also (as 'gamekeepers') each 'public-citizen' is more likely to report 'benefit cheats' to the authorities than to report 'tax dodgers' to the authorities.

(iii) *Individuals are more likely to commit tax evasion than benefit fraud.*

A third observation is that when individuals are asked to consider whether they would commit benefit fraud, or tax evasion, their reference point will be their own personal income (instead of the 'public purse'). That is, a switch from a 'public-citizen' to a 'private-person' point of view may occur (from a broader 'citizen' point of view to a narrower instrumental perspective). While it is extremely difficult for individuals to estimate the revenue in the 'public purse' if everyone acts honestly, individuals are able to gauge their own personal income if they act honestly (e.g. see Kirchler et al. 2009). When asked about their attitudes to benefit fraud and tax evasion (as 'victims' of these crimes), they condemn benefit fraud. But what happens when they switch from 'victims' to potential 'authors' of these crimes? As Figure 1 illustrates, from the 'private-person' point of view of taxpayers, tax evasion is coded as an 'avoided loss', since they try to prevent an institution from taking the money they earned for themselves. On the other hand, benefit fraud is now coded as a potential 'gain' (with reference to 'own honest income'), since they are cheating 'the system' to get money they are not entitled to. Of course as opposed to the 'public-citizen' role the 'private-person' role does involve contemplating risk. Given the shape of the value function individuals should be more inclined to be risk taking to prevent a loss as opposed to being risk averse in securing a gain of the same value, being therefore more willing to commit tax evasion than benefit fraud. For comparison purposes in what follows it is assumed that tax evasion and benefit fraud are equally risky so that it is recognized that a full analysis of the putative financial gain from benefit fraud (*0-bf*^{2}) and the equal putative financial gain from tax evasion (*0-te*^{2}) would involve an expected value calculation in the Kahneman and Tversky sense. However nothing is lost here by abstracting from this and making more direct comparisons.

In Figure 1, the financial gain from benefit fraud (*0-bf*^{2}) is coded as a foregone gain and is equal to the financial gain from tax evasion (*0-te*^{2}) that is coded as an avoided loss. As tax evasion is coded as an avoided loss, the *subjective value* of the avoided loss from tax evasion for 'private-person' *U* (*0-ve(U)* at point *3*) is greater than the *subjective value* of the foregone gain from benefit fraud (*0-vf(U)*at point *1*). [4] Similarly, 'private-person' *I* 's *subjective value* of the avoided loss from tax evasion

[3] For the 'public-citizen', one interpretation of the value of tax evasion is premised on an *ex-ante* perspective. It is compensation required for what might have been; for the loss of revenue – *a foregone gain*. For benefit fraud, the value is premised on an *ex-post* perspective. It is the compensation required to accept the loss that has already taken place. It is also worth noting that there is often a difference in perceptions of 'sins of omission' and 'sins of commission'. If tax evasion is an omission to pay taxes, benefit fraud is the commission of a crime to take revenue from the 'public purse'.

[4] In the comments that individuals make in the popular press there is evidence of this difference in the perceptions that individuals report of these two crimes. Consider a letter published in the *Daily Telegraph* 25/6/12 (under the heading 'Avoiding tax is not morally equivalent to committing benefit fraud'). The author questions the proposition that 'tax dodgers' and 'benefit cheats' are equivalent: "The first group is trying to

(*0-ve(I)* at point *4*) is lower than the *subjective value* of the foregone gain from benefit fraud (*0-vf(I)* at point *2*). From the 'private-person' viewpoint taking risk in failing to add to the 'public purse' (an avoided loss) offers greater subjective value than taking the risk of a conspiracy to *take resources out* of the 'public purse'. The prediction is that from a 'private-person' perspective risky tax evasion has more subjective value to offer than equivalent risky benefit fraud.

(iv) *Individuals' attitudes and reported behavior with respect to public finance crimes are likely to be conditioned on the salience individuals attach to government revenue and on how widespread they perceive such illegal behaviour to be.*

At this point the analysis focuses on comparisons *across* individuals (comparisons that condition the general observations (i) – (iii) on country of origin). In this paper the empirical analysis is of a 'representative' individual (*U*) in the United Kingdom and a 'representative' individual (*I*) in Italy. Hence the different locations of the two value functions in Figure 1.

It is important to consider the difference in the austerity programs introduced to reduce government deficits. Italy was engaged in a far more severe program. On the 14th May 2012, the *Daily Telegraph* (p.4) reported that: "Soldiers may be brought in to protect Italian tax offices and other sensitive sites after an increase in violence as the country struggles through austerity measures". With these differences in recent experience, Italians are likely to attach greater salience to the state of their public finances. Figure 1 illustrates two conventionally-shaped value functions. The value function for individual *I* is the value function of an individual who displays a more salient concern for the plight of the public finances (when comparing this value function with the value function that is illustrated for individual *U*). Italy was one of the four nation states in the Eurozone perceived to have very weak public finances (the others were Portugal, Greece and Spain).[5] The implication is that Italians are likely to perceive public finance crimes as more serious and as more prevalent in their countries (than their UK counterparts).

With evidence that salience matters when individuals respond to potential changes in their financial circumstances (see Bordalo et al., 2012), how will this difference in salience influence attitudes and behavior in Italy and in the UK? [6] There are two predictions.

First, as public finance is a more salient concern in Italy, Italians attach greater importance to changes in the public purse. As 'public-citizen' observers of crimes, the value of 'loss' (when there is benefit fraud), and of foregone gain (when there is tax evasion), will be higher in Italy than in the UK (as reflected in the locations of *v(I)* and *v(U)* in Figure 1). As observers of the crimes, Italians will be more condemnatory of both crimes than citizens in the UK (more willing to report offenders and more likely to call for harsher punishments).

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prevent an institution forcibly taking money that they themselves have earned. The second group is trying to con money that they do nothing to deserve. How is that equivalent?"

[5] Italy provides the '*I*' for the economies dubbed the *PIGS* in the Eurozone. The salience of public finance crimes was very high in all these economies. In May 2012, Christine Lagarde (Managing Director of the IMF) speaking about the Greeks is reported as saying: "I think they should also help themselves collectively." Asked how, she replied: "By all paying their tax." Asked if she was essentially saying to the Greeks and others in Europe that they have had a nice time and it is now payback time, she responded: "That's right."

[6] Bordalo et. al. (2012) employ salience to replace Kahneman and Tversky's decision weights with ones based on the salience of payoffs in lotteries, while here it is the other arm of Prospect Theory – the value function- that is deemed subject to salience effects.

Second, the same difference in salience (the same difference in the location of *v(I)* and v*(U)*) means that Italians are also likely to be more willing to commit these crimes. As the state of the public finances is more salient in the lives of Italians, Italians attach a higher subjective value to the proceeds of fiscal crime. The paradox is that Italians are more likely to be condemnatory and more likely to commit these crimes (than citizens in the UK). [7] Early indications of the paradox that has been identified in this paper can be found in Alm and Torgler study (2006). They focused on questionnaire responses in the World Values Survey to plot the relationship between tax morale and the size of the shadow economy in different countries. Results showed that the shadow economy in Italy in the 1990s was estimated to be far higher than anticipated with reference to Italians' responses to the question of whether cheating on tax can be justified or not (their tax morality). Moreover, the study shows that, despite Italy and the UK presenting a similar level of tax morality, in Italy the size of shadow economy was much greater than in the UK. It suggests that tax morality alone (and attitudes towards fiscal crimes) cannot entirely explain willingness to commit such crimes. A possible explanation is that the different perception of how widespread a behavior is – although illegal – might lead people to be more willing to commit it, even if they recognize it is wrong (since "*everyone else is doing it*"). Spicer and Lundstedt (1976) provide early econometric evidence that the number of others who are tax evaders that are known to an individual make evasion more likely and in this way social norms cannot be ignored.

To summarize, the research objectives are to assess whether there are differences in:

(i) *Attitudes to different crimes*: Are reported acts of benefit fraud always perceived to be 'more wrong' than reported acts of tax evasion?

(ii) *Attitudes in different countries*: Are reported acts of benefit fraud and tax evasion perceived to be 'more serious' in Italy than in the UK (because public finance concerns are more salient in Italy) – implying that Italians are harsher gamekeepers?

(iii) *Willingness to commit crimes*: If individuals are more condemnatory of benefit fraud than tax evasion are they less willing to commit benefit fraud than tax evasion? Are Italians more condemnatory of both crimes and more likely to commit both crimes (because public finance concerns are more salient in their lives and fiscal offences are perceived as more widespread) - implying that would-be poachers are harsher gamekeepers?

3. Method

3.1 Materials and Design

A questionnaire was designed to shed insight into individuals' perceptions of tax evasion and benefit fraud (of equal pecuniary value).[8] The objective was to compare attitudes and reported behavior. How are crimes perceived? How important is the salience of public finance in countries that have experienced a pronounced fiscal crisis? How important is the perceived prevalence of illegal fiscal behaviors?

[7] Halla and Schneider (2014) also argue that personal experience affects attitudes to public finance crimes; high-income earners are more likely to condemn benefit fraud and low-income citizens are more likely to condemn tax evasion. In this paper, the argument is that individuals' experience is relevant when assessing the likelihood that they will commit *both* crimes. The more salient the state of the public finances, the more they are willing to commit public finance crimes and the more they condemn the crimes of others.

[8] The questionnaire is available from the authors on request.

The pecuniary values in this paper were premised on the values that were cited in the UK Cabinet Office Report, *Tackling Fraud and Error in Government*. The 2012 Report estimates an annual loss of £31 billion in the UK (costing every man, woman and child £500). Hence £500 was chosen as the gain in 'short term' /monthly scenarios and £6,000 for the 'long term'/ annual scenarios. As there was rough parity between the Euro and the GB Pound at the time of data collection, these figures were the same in the Italian version of the questionnaire. The scenarios relevant to the current analysis are reproduced in Table 1.

[Insert Table 1 near here]

The first scenario in each block related to tax evasion (TE) and the second and third to benefit fraud (BF). In all cases respondents were asked to tick a box corresponding to a four point scale as to whether they considered the activity '1, Not wrong' to '4, Seriously wrong' and what the appropriate fine should be. They were also asked whether they would engage in the activity or not themselves, from '1, Very Likely' to '4, Not at all likely'. Finally, they were asked how prevalent they believed benefit fraud and tax evasion was in their own country and whether they would report observed illegal activities to the authorities.

3.2 Participants and Procedure

Questionnaires were completed in Psychology classes and in Economics classes at the University of Bath, U.K. and at the Università Cattolica, Milan, Italy (with opportunity sampling). The questionnaires were completed individually and anonymity was assured. The procedure was administered by the authors.

Country of origin was asked in the questionnaire and non-national students were subsequently excluded from the analysis. Out of 360 collected questionnaires in the UK, 234 respondents were British (65%). Of the 234 British students in the UK, 120 were male and 114 were female. Of these 141 were undergraduate Economics students and 93 were undergraduate Psychology students. A carefully translated questionnaire was distributed in Italy. As for the Italian sample, 100% respondents were of Italian nationality. The Italian sample comprised 205 students (25 male and 180 female). Of these 82 were undergraduate Economics students and 123 were undergraduate Psychology students. Given the sizeable differences between the UK and Italian samples in terms of gender and subject of study, these latter two variables were included as covariates in statistical analyses involving country as an independent variable. Table 2 provides a further description of the composition of the sample.

[Insert Table 2 near here]

4. Data and Results

The key results are presented in the sub-sections below. For each statistical analysis performed, only the most relevant results referring to the research objectives listed in section 2 are discussed. But what of the basic data? Table 3 describes the distribution of responses to questions (across the scale that was employed in the questionnaire)[9].

[9] Tables that describe the correlations between responses to the questions are available from the authors on request.

[Insert Table 3 near here]

The summary reponses to the various questions concerning public finance crimes are presented in Table 4.

[Insert Table 4 near here]

Considering Table 4, the summary data reveals evidence on the seriousness with which the different public sector crimes are viewed by respondents– their 'value assignment' as reflected in suggested fines (columns (1) and (5)) – respondents' attitudes towards the crimes described - 'wrongness' columns (3) and (7) - and willingness to commit the crimes themselves – potential criminal behaviour (columns 4 and 8). The 'wrongness' percentage is a head count of those responding 'wrong' and 'seriously wrong' in their questionnaire. The 'would you do it' percentage is a head count of those responding 'very likely' and 'fairly likely' in their questionnaire.The results appear consistent with the analysis presented in section 2 of the paper. The salience argument gains support as Italian students see the crimes as more serious, consistently suggesting higher fines and higher percentages of fine to the proceeds from crime (see columns (2) and (6)). *Italians seem to present as more harsh gamekeepers.*

As roles switch from 'gamekeeping' to 'poaching', so do attitudes and possible behaviour. 'Wrongness' percentages are mixed 3 v 3 in terms of relative magnitudes. As regards 'likely to do it', Italians consistently report higher 'likely' percentages. *Italians seem to present as more likely poachers.* But can this picture sustain statistical scrutiny?

4.1 Differences in attitudes, fines and behaviour towards fiscal offences

A repeated measures MANOVA (3x2x2) was conducted (3 different scenarios within subjects x 2 offence duration intervals within subjects x 2 countries between subjects, gender and degree of the participants as covariates). Table 5 describes the entire MANOVA results along with all the associated 3x2x2 ANOVA results, both the main and the interaction effects. It shows a significant multivariate main effect for the three dependent variables (attitudes, fines and behaviour) as a group in relation to fiscal offence , offence duration (p<.001) and country of origin. Also the interaction effects between fiscal offence and offence duration, fiscal offence and country of origin, offence duration and country of origin were significant. The main and interaction effects of the repeated measure MANOVA (3x2x2) are detailed in the subsections below.

[Insert Table 5 near here]

[Insert Table 6 near here]

[Insert Table 7 near here]

4.1.1 Repeated measures MANOVA – main effects

First, the main effects of the analysis are considered. Univariate analyses (see Table 5) show that there are differences between the fiscal offences studied, both in relation to attitudes (how wrong they are perceived), fines (the level of appropriate punishment) and behaviour (the likeliness to commit the crimes). Comparisons (see Table 6) and estimated means (see Table 7) reveal that participants are more condemnatory of benefit fraud than of tax evasion, call for higher punishments for benefit fraud than for tax evasion, and are more likely to commit tax evasion than benefit fraud – which are consistent judgements. The results are in line with Prospect Theory, as

illustrated in section 2. However, comparisons show that there is something else. Differences can be found also between the two different benefit fraud offences (unemployment and injury), where participants are more condemnatory of injury benefit fraud than of unemployment benefit fraud, calling for higher punishment for injury benefit fraud than for unemployment benefit fraud, and are more likely to commit unemployment benefit fraud than injury benefit fraud. Such differences cannot be entirely explained by Prospect Theory (both being offences classified as benefit fraud), but need to take into account other psychological factors, such as people's morals (i.e. falsely claiming to be injured is more serious than falsely claiming to be unemployed) or the different perception of the prevalence of such crimes.

Moving to the univariate analyses for the effect of offence duration, results show that if a fiscal offence is repeated for a longer and continuous period of time (thus involving a larger amount of money), both the negative attitude and the appropriate punishment increases, while the likeliness to do it decreases (as might be anticipated).

Finally, univariate analyses for the effect of country of origin significantly predicted responses related to fines and behaviour, not to attitudes. More specifically, Italian participants call for higher punishments for fiscal offences than English participants, but at the same time Italians are more willing to commit them (although Italians consider them as wrong as English participants do- see row C Table 5). This result is in line with the hypothesis that would be poachers make more harsh gamekeepers. Interestingly, despite the diffences in fines and behaviour, Italian and English participants share the same attitude towards fiscal offences. This is in line with Alm and Torgler's study (2006), who registered a similar degree of tax morale for Italy and UK.

4.1.2 Repeated measures MANOVA – interaction effects

Moving to the interaction effects, Table 5 shows that many of them are significant but here the concentration is on those relevant to the task at hand. Table 6 and Table 7 illustrate respectively comparisons and estimated means for all interaction effects.

The significant interaction effect between fiscal offence and country of origin indicates that, in a context where benefit fraud is generally perceived as more wrong than evasion, Italians perceive tax evasion as more wrong than English people do. Moreover, Italians are more harsh gamekeepers regardless of the kind of fiscal offence (note the lack of significant interaction effects for fines). As for their likeliness to commit fiscal offences, although Italians are generally more willing to misbehave, they especially have a proclivity for unemployment benefit fraud. This might be – at least partially – explained by the difficult situation experienced by Italian participants at the time of the collection of data, where youth unemployemnt had just hit 31% (10% higher than the average level in the Eurozone).

As for the interaction effect between country of origin and duration of the offence, it is worth noting that Italians become even more harsh gamekeepers for long-term offences.

4.2 Differences in Prevalence and Reporting

Italian respondents believe that both tax evasion and benefit fraud are more prevalent, estimating that, on average, 41% of the Italian population are engaged in benefit fraud (UK 32%) and a majority (53%) in tax evasion (UK 28%). When employing a MANOVA test (country of origin as the independent variable, gender and degree of the participants as covariates), a significant mutivariate effect ($F(2,426)=80.51$, $p<.001$, $\eta^2=.30$) indicates that these public finance crimes are perceived as more widespread in Italy than in the UK. Univariate tests support this evidence both for tax evasion ($F(1,427)=154.85$, $p<.001$, $\eta^2=.27$) and for benefit fraud ($F(1,427)=18.07$, $p<.001$, $\eta^2=.04$). The different

perceptions of how such illegal behaviours are widespread in UK and Italy must not be underestimated. Interestingly, only behaviours (neither attitudes nor suggested fines) are systematically and significantly correlated to perceived prevalence, both in relation to tax evasion (paid500: r=.19, p<.001; paid 6000: r=.21, p<.001) and to benefit fraud (unempl500: r=.19, p<.001; unempl6000: r=.22, p<.001; injury500: r=.10, p<.05; injury6000: r=.13, p<.01). This might help to explain why Italians declare to be more willing to commit fiscal offence than English people (because "*everyone else is doing it*").

The paradox is that, while Italians are more willing to engage in public finance crime (as discussed in paragraph 4.1.1), they are also more likely to report the misdemeanours of others to the authorities, as suggested by a one-way MANOVA (country of origin as the independent variable, gender and degree of the participants as covariates, willingness to report tax evasion and benefit fraud as dependent variables). A significant multivariate effect (F(2,431)=19.76, p<.001, η^2=.08) indicates that the Italian sample is generally more willing to report illegal behaviors to the authorities; the univariate effects confirm the existence of a statistically significant difference both for tax evasion (F(1,432)=31.42, p<.001, η^2=.07) and benefit fraud (F(1,432)=30.76, p<.001, η^2=.07). The estimated marginal means (with degree=.49 and gender=.67) for reporting tax evasion and benefit fraud are respectively: UK=2.9 compared to Italy=2.4, and UK=2.4 compared to Italy=1.8 (the lower the score the greater agreement with reporting).

5. Discussion and Conclusion

Are these results consistent with behavioral insights presented in section 2 of the paper? 'Value coding', suggesting that (in general) 'public- citizen'- individuals are more condemnatory of benefit fraud than tax evasion, is well supported by the data. The prediction about 'seriousness' (as reflected in the suggestion of higher appropriate fines for benefit fraud than tax evasion) also finds support. Section 2 pointed out the likely differences between the Italian and UK representative individual, arising because of salience and suggested that: (a) Italians would perceive a greater prevalence of public finance crimes; (b) be more willing to report and harshly punish such crimes and (c) paradoxically, be more willing to commit such crimes. This prompted the question posed in the title to this paper. In a direct answer to the question, Italians appear to be the more likely poachers and are more likely to be harsh gamekeepers.

On the evidence presented here, against a background of a common view of 'wrongness', Italians nevertheless differentially: perceive a greater prevalence of public finance crimes; suggest higher fines for public-finance crimes and are more likely to report someone cheating 'the system' to the authorities, but at the same time they say they are more likely to cheat themselves. There seems to be a clear dichotomy between what they wish for themselves in a 'private-person' role and what they wish for others in a 'public-citizen' role – a prisoner's dilemma.

When reflecting on this conclusion, the first question is whether it is consistent with other observations in this literature. While the literature on tax evasion is prolific (see Kirchler 2007 for a relatively recent survey), the literature on benefit fraud is sparse. When scholars attempt to explain higher levels of tax compliance than predicted by neoclassical economics (Andreoni, Erard and Feinstein 1998), they argue that tax morale reduces the likelihood that individuals will evade. Tax morale is defined as an individual's motivation not to cheat the government by evading tax (see, for example, Torgler 2003). In the same vein, benefit morale is a motivation that reduces the likelihood that individuals will engage in fraud. Heinemann (2008) and Halla, Lackner and Schneider (2010) question the impact that high levels of social spending and high unemployment rates exert on benefit morale. Halla, Lackner and Schneider (2010:71) conclude that "…negative macroeconomic

shocks not only increase the share of the population living on benefit *per se*, but in addition a deterioration of benefit morale has to be expected". The observation is that both benefit morale and tax morale are likely to be influenced by economic variables. Halla and Schneider (2014) argue that non-employed citizens are far more likely to 'demand' high tax morale and far less likely to 'demand' high benefit morale (than employed citizens). The authors conclude that "…citizens self-servingly adjust their moral values" (p.18). A similar interpretation might apply when reflecting on the results that are reported in this paper. As observers of public finance crimes, citizens are indignant but they are quite able to adjust when offered the opportunity to commit these crimes.

The second question to consider (when reflecting on these conclusions) is whether there are any implications for policies designed to deter tax evasion and policies designed to deter benefit fraud. Economists argue that policy to deter tax evasion is 'optimal' if the marginal cost of resources employed to deter tax evasion equals the marginal benefit of deterrence. If policy is designed to maximize revenue, the marginal benefit is the incremental value of recoverable tax revenue (e.g. Collard 1989). The same analysis could apply when designing policy to deter benefit fraud; policy is 'optimal' when the marginal cost of resources equals the incremental value of recoverable revenue made available for legitimate government expenditure. In neoclassical economics money is fungible (a pound of revenue recovered by action that deters tax evasion is equal to a pound of revenue that deters benefit fraud). However in this paper the evidence is that, pound for pound, the value loss experienced from benefit fraud is higher than the loss from tax evasion. There is a rationale to incur additional costs to deter one pound/euro of benefit fraud (as compared to the marginal cost they incur to deter one pound/euro of evaded tax). If governments design deterrence policy to maximise political popularity and, in this way, to maximise 'value' (rather than revenue[10]), the marginal benefit of deterring benefit fraud appears to be higher than the marginal benefit of deterring tax evasion. In other words, from the 'public-citizens' perspective if the government collects an additional pound/euro by fighting benefit fraud, it is more valuable than collecting a pound/euro by fighting tax evasion, as it would allow 'public-citizens' to avoid a loss.

The empirical work reported above is based on student responses, and this calls in question the extent to which the analysis applies more generally. Having said this, the responses and cognitive processes of students are seldom that different to those of 'normal' people (see for example Plott 1987). The analysis in this paper is consistent with the propositions that sins of omission are perceived to be different to sins of commission, and that national differences in these perceptions are relevant when designing policies to deter tax evasion and benefit fraud.

[10] For an application of Prospect Theory to the trade-off 'economic value vs. political consensus' within fiscal policies, see Lozza, Carrera & Bosio, 2010.

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Table 1. Short and long term scenarios (offence duration)

SCENARIO (short term)	SCENARIO (long term)
Paid500. A person in a paid work paying tax takes an extra weekend job for a month and is paid in cash. He does not declare it for tax and so is £500 in pocket.	**Paid6000**. A person in a paid work paying tax takes an extra weekend job for a year and is paid in cash. He does not declare it for tax and so is £6000 in pocket.
Unemp500. An unemployed person on state benefit takes a casual job for a month and is paid in cash. He does not report it to the benefit office and so is £500 in pocket.	**Unemp6000**. An unemployed person on state benefit takes a casual job for a year and is paid in cash. He does not report it to the benefit office and so is £6000 in pocket.
Injury500. A person has been receiving £500 extra state benefit per month since a back injury stopped him working. Even though in the past month he has been well enough to do some types of full-time work he does not tell the benefit office and is £500 in pocket.	**Injury6000**. A person has been receiving £6000 extra state benefit per month since a back injury stopped him working. Even though in the past year he has been well enough to do some types of full-time work he does not tell the benefit office and is £6000 in pocket.

Table 2. The sample: descriptive statistics

Degree	**Frequency**	**Percent**
Economics	223	50.8
Psychology	216	49.2
Total	439	100.0

Gender	**Frequency**	**Percent**
Male	146	33.1
Female	293	66.9
Total	439	100.0

Country of Origin	**Frequency**	**Percent**
UK	234	53.3
Italy	205	46.7
Total	439	100.0

Age	**Minimum**	**Maximum**	**Mean**	**Standard Deviation**
Total (N=436)	17	28	20.92	2.04

Table 3. The responses: descriptive statistics

	N	Minimum	Maximum	Mean	Standard Deviation
Attitude					
Paid500	439	1	4	2.23	.811
Paid6000	437	1	4	2.90	.808
Unempl500	437	1	4	2.80	.906
Unemploy6000	437	1	4	3.29	.777
Injury500	437	1	4	3.12	.747
Injury6000	439	1	4	3.53	.611
Valid N (listwise)	436				
Behaviour					
Paid 500do	439	1	4	2.05	.899
Paid 6000do	436	1	4	2.86	.918
Unempl5000do	437	1	4	2.73	1.037
Unemploy6000do	437	1	4	3.24	.900
Injury500do	437	1	4	3.22	.858
Injury6000do	439	1	4	3.60	.654
Valid N (listwise)	435				
Fine					
Paid500fine	405	0	20000	527.24	1496.52
Paid6000fine	402	0	60000	3944.73	6946.69
Unemploy500fine	395	0	20000	747.01	1796.63
Unemploy6000fine	400	0	120000	5558.48	11008.04
Injury500fine	397	0	50000	1247.34	4058.82
Injury6000fine	399	0	100000	6435.16	12128.17
Valid N (listwise)	383	0			
Reporting					
Report TaxEvasion	438	1	5	2.66	.987
Report Benefit Fraud	436	1	5	2.13	.967
Valid N (listwise)	436				
Prevalence					
tax__evasion	434	.0	100	39.54	23.15
benefit_fraud	433	.0	100	35.78	20.84
Valid N (listwise)	431				

Table 4. The summary responses on seriousness, attitude and behaviour towards public finance crime

	UK data				Italian data			
	Game keeping		Poaching		Game keeping		Poaching	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Mean fine (GB Pounds)	% fine	Is it wrong? (yes) (%)	Would you do it? (likely) (%)	Mean fine (Euros)	% fine	Is it wrong? (yes) (%)	Would you do it? (likely) (%)
Short term scenario	**Seriousness**		**Attitude**	**Behaviour**	**Seriousness**		**Attitude**	**Behaviour**
Paid500 (TE)	352	70	29	64	758	152	44	77
Unemp500 (BF)	692	138	74	27	821	164	57	60
Injury500 (BF)	1164	233	83	12	1361	272	81	25
Long term scenario	**Seriousness**		**Attitude**	**Behaviour**	**Seriousness**		**Attitude**	**Behaviour**
Paid6000 (TE)	3067	51	72	25	5130	85	75	37
Unemp6000 (BF)	4988	83	91	9	6331	106	80	27
Injury6000 (BF)	5382	90	95	5	7868	131	96	7

Table 5. Repeated measures MANOVA (3x2x2)

	MANOVA				Attitudes Univariate analyses				Fines Univariate analyses				Behavior Univariate analyses			
Effects	*F*	df	*p*	η^2	*F*	df	*p*	η^2	*F*	Df	*p*	η^2	*F*	df	*p*	η^2
One-way effects																
A - fiscal offence	36.641	6, 374	***	.37	59.361	2, 758	***	.13	15.210	2, 758	***	.04	114.090	2, 758	***	.23
B - time interval	78.735	3, 377	***	.38	89.859	1, 379	***	.19	93.802	1, 379	***	.20	133.284	1, 379	***	.26
C - country of origin	24.526	3. 377	***	.16	0.766	1, 379	n.s.	-	13.161	1, 379	***	.03	35.644	1,379	***	.09
One-way effects																
AxB	8.457	6, 374	***	.12	9.946	2, 758	***	.30	10.526	2, 758	***	.03	16.338	2, 758	***	.04
BxC	8.768	3, 377	***	.06	7.005	1, 758	**	.02	12.294	1, 758	**	.03	0.407	1, 758	n.s.	-
AxC	10.885	6, 374	***	.15	17.645	2, 758	***	.04	0.780	2, 758	n.s.	-	12.624	2, 758	***	.03
Three-way effect																
AxBxC	2.080	6, 374	n.s.	-	2.738	2, 758	n.s.	-	0.676	2, 758	n.s.	-	4.806	2, 758	*	.01

**= p<.01

***=p<.001

Covariates in the model are evaluated at the following values: Degree = .48 and Gender = .64

Table 6. Repeated measures MANOVA (3x2x2) - Planned contrasts

		Attitudes				Fines				Behavior			
		F	df	*p*	η^2	*F*	df	*P*	η^2	*F*	df	*p*	η^2
Fiscal offence	TE vs. BF (unempl)	52.441	1, 379	***	.12	12.985	1, 379	***	.03	59.880	1, 379	***	.14
	TE vs. BF (injury)	102.653	1, 379	***	.21	19.581	1, 379	***	.05	205.470	1, 379	***	.35
	BF (unempl) vs. BF (injury)	14.233	1, 379	***	.04	7.196	1, 379	**	.02	61.315	1, 379	***	.14
Fiscal offence x Time interval	TE vs. BF (unempl)	4.328	1, 379	*	.01	13.966	1, 379	***	.04	6.369	1, 379	*	.02
	TE vs. BF (injury)	19.068	1, 379	***	.05	11.587	1, 379	**	.03	30.373	1, 379	***	.07
	BF (unempl) vs. BF (injury)	5.914	1, 379	*	.01	.037	1, 379	n.s.	-	10.888	1, 379	**	.03
Fiscal offence x Country of origin	TE vs. BF (unempl)	36.772	1, 379	***	.09	.020	1, 379	n.s.	-	13.709	1, 379	***	.03
	TE vs. BF (injury)	9.522	1, 379	**	.02	.669	1, 379	n.s.	-	.704	1, 379	n.s.	-
	BF (unempl) vs. BF (injury)	7.689	1, 379	**	.02	2.247	1, 379	n.s.	-	27.426	1, 379	***	.07
Fiscal offence x Time interval x Country of origin	TE vs. BF (unempl)	5.110	1, 379	*	.01	.334	1, 379	n.s.	-	7.729	1, 379	**	.02
	TE vs. BF (injury)	.436	1, 379	n.s.	-	1.027	1, 379	n.s.	-	.039	1, 379	n.s.	-
	BF (unempl) vs. BF (injury)	2.730	1, 379	n.s.	-	.558	1, 379	n.s.	-	7.158	1, 379	**	.02

*= p<.05
**=p<.01
***=p<.001

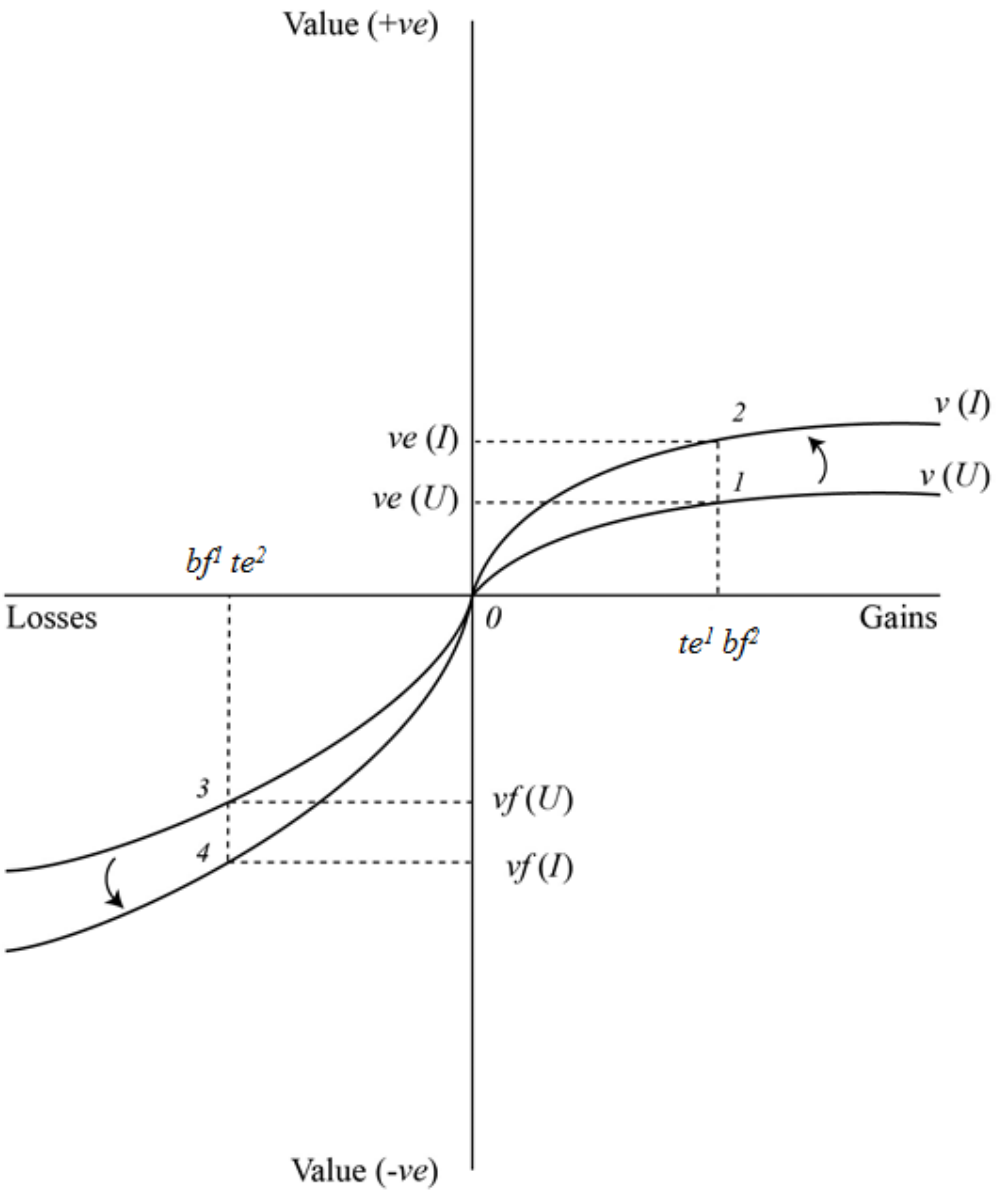
Table 7. Repeated measures MANOVA (3x2x2) - Estimated marginal means

			Attitudes	Fines	Behaviour
A - fiscal offence	TE		2.58	2370	2.44
	BF (unempl)		3.05	3324	2.97
	BF (injury)		3.36	4022	3.43
B - time interval	Short term		2.73	878	2.66
	Long term		3.26	5599	3.23
C - country of origin	UK		3.02	2217	3.15
	Italy		2.97	4260	2.74
Interactions					
AxB	TE	Short term	2.25	571	2.03
		Long term	2.92	4168	2.85
	BF (unempl)	Short term	2.80	763	2.70
		Long term	3.31	5885	3.24
	BF (injury)	Short term	3.16	1300	3.25
		Long term	3.55	6745	3.61
BxC	UK	Short term	2.73	634	2.88
		Long term	3.32	3800	3.43
	Italy	Short term	2.74	1122	2.44
		Long term	3.20	7398	3.03
AxC	TE	UK	2.48	1432	2.60
		Italy	2.69	3307	2.27
	BF (unempl)	UK	3.20	2425	3.30
		Italy	2.90	4223	2.63
	BF (injury)	UK	3.39	2794	3.56
		Italy	3.32	5251	3.30

Attitudes: 'Do you feel this is wrong or not wrong?' (1=Not wrong; 4=Seriously wrong)

Fines: 'How much do you think an appropriate fine should be for someone doing this?'

Behaviour: 'Would you do this?' (1=Very likely; 4=Not at all likely)



[1] 'public-citizen' viewpoint
[2] 'private-person' viewpoint

FIGURE 1. Value Functions